

# SP-401S SOLAR RUNWAY EDGE LIGHT

**MEDIUM INTENSITY** 

WHITE/YELLOW

Intertek



#### Compliance:

ICAO Annex 14 Vol. I (8th. Edition, July 2018) EASA CS-ADR-DSN FAA AC

#### FEATURES

- Operates 365 days on solar energy
- 5-level protection against system failure

EASA

• 180 hrs of autonomy

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#### APPLICATION

Medium intensity, combined optics (bi-and omnidirectional), designed for permanent usage at airports located in regions without access to electricity and with high photovoltaic potential.

### **TECHNICAL SPECIFICATIONS**

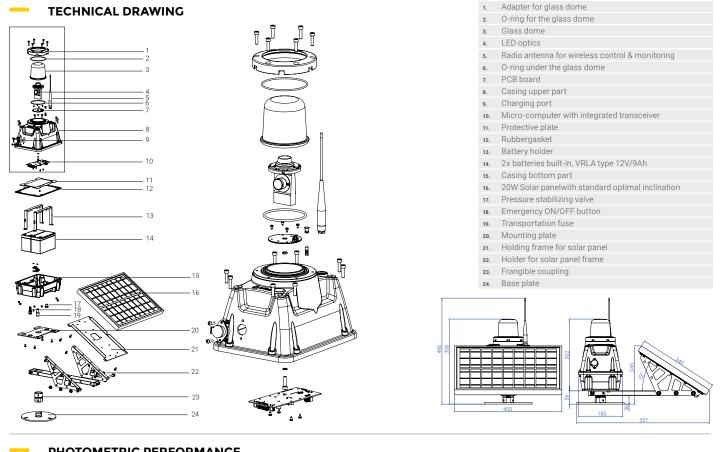
Optics	white) / SEO of (vollow) light output (tested by secondited laboratory)	
<ul> <li>1.200 cd (white) / 850 cd (yellow) light output (tested by accredited laboratory)</li> <li>Combined type, omnidirectional and bidirectional</li> </ul>		
LED lifespan: 100.000 hrs		
Maximum power consumption: 9W		
NVG-compatible, Infrared LEDs (optional)		
Color: white/yellow     User-replaceable		
Battery	Ou built is betteries are seen as the second second second set	
	2x built-in batteries, user-replaceable, air transportable	
	<ul> <li>Autonomy: 180 hrs (minimum intensity)</li> </ul>	
Standard battery	<ul> <li>Total capacity: 216W (2x9Ah/12V)</li> </ul>	
	<ul> <li>Deep-cycle VRLA, 12V/9Ah (available worldwide)</li> </ul>	
	<ul> <li>Lifespan: 1.200 cycles (designed for 4-5 years)</li> </ul>	
	1x built-in battery, user-replaceable, air transportable	
Cyclon battery	Autonomy: 100 hrs (minimum intensity)	
(Arctic Pack)	Total capacity: 120W (10Ah/12V)	
	<ul> <li>Lifespan: 300 cycles (designed for 10-15 years)</li> </ul>	
Solar Power Supply		
<ul> <li>20W solar panel, separately installed</li> </ul>		
<ul> <li>Polycrystalline type (optional: monocrystalline)</li> </ul>		
Lifespan: 15 years		
<ul> <li>MPPT-Ten</li> </ul>	np / Built-in inverter 12-36V/2A	
Control & Monitoring		
Wireless mesh type network		
<ul> <li>Operating frequency: 868 MHz (optional 2.4GHz or 433 Mhz)</li> </ul>		
<ul> <li>Operating range: up to 1.5 km, relayed (each light is a repeater)</li> </ul>		
<ul> <li>Operating</li> </ul>	Modes:	
Steady / Flashing / Dusk till dawn		
Visible / Infrared (optional) / Visible + Infrared (optional)		
Activation options:		
Via ALCMS Computer Interface (requires UR-201)		
Via UR-201 Control & Monitoring Unit		
Via UR-101 Handheld Controller		
Casing & Components		
Materials		
Dome: glass, UV-resistant		
Casing: Lexan polycarbonate, UV-stabilized, color: aviation yellow		
Mounting: galvanized steel (optional: marine grade stainless steel)		
Frangible mounting: aluminum (tested by accredited laboratory)		
Detachable antenna		
Pressure stabilizing valve, transportation fuse		
Battery level indicator		
Carrying handle (optional)		
Casing lifespan: 15 years		
<ul> <li>Dimensions (LxWxH): 557 mm x 450 mm x 358 mm</li> </ul>		

• Weight: 12,4 kg

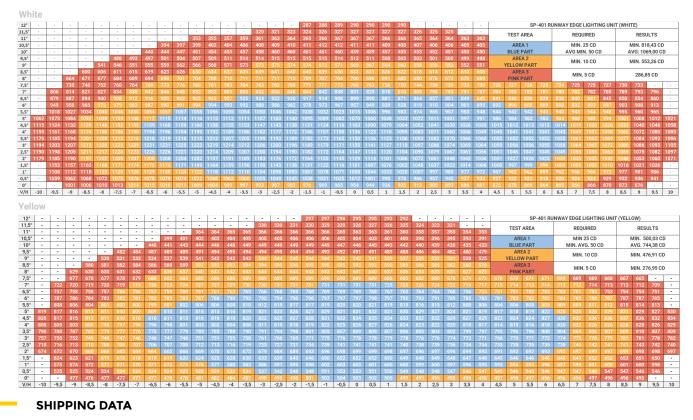
Safety & Reliability		
<ul> <li>Five levels of protection against system failure</li> <li>Secondary power supply: backup battery</li> <li>Real-time monitoring via ALCMS         <ul> <li>(Airfield Lighting Control and Monitoring System)</li> <li>Emergency ON/OFF button</li> </ul> </li> </ul>		
Optional: -40 to 80 °C • Ingress protection: IP • Impact Resistance: Ik	20 to 50 °C (-4 to 122 °F) (-40 to 176 °F) -67 (tested by accredited laboratory) 6-10 (tested by accredited laboratory) 240 kph (tested by accredited laboratory)	
Photometric & Chromaticity	ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 5:3:9:8 & clause 5:3:9:9, Appendix 1, Figure A1-1b	
Jet Blast Resistance	ICAO, Annex 14th, Volume I, 8th Edition dated July 2018. Doc 9157, Part 6, clause 3.2.2 & clause 4.9.1.	
	FAA AC 150/5345-50B dated September 2007, clause 3.2.2	
	ICAO Doc 9157 AN901 Aerodrome Design Manual Part 6, 1st Edition dated 2006, clause 4.9	
Frangibility	ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, clause 5.3.1.3	
	FAA AC 150-5345-46E clause 3.4.2.1	
	FAA AC 150/5220-23, clause 3.2	
Secondary Power Supply	ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 8.1.8-8.1.9 & clause 8.1.11	
CE Declaration of Conformity	2014/53/EU RED Directive, clauses 3.1a, 3.1b, 3.2	
of bestardion of comonney	2011/65/EU ROHS Directive, clause 4.1	
Accredited Laboratory Testing		
Photometric & Chromaticity	Intertek Laboratory	
Jet Blast Resistance	Warsaw Institute of Aviation The Laboratory of Aerodynamics	
Frangibility	Laborex Research Laboratory	
Ingress Protection	EMAG Institute of Innovative Technologies	
Impact Resistance	Laborex Research Laboratory	
Electromagnetic Compatibility	Military Institute of Armament Technology	



## WORLD'S SAFEST RUNWAY LIGHTING



#### PHOTOMETRIC PERFORMANCE



#### Gross Weight Item SP-401 Lighting Unit 630 mm x 270 mm x 380 mm 15 kg SP-401 Lighting Unit, NO batteries 630 mm x 270 mm x 380 mm 9,8 kg